Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: EOG Resources, Inc.
Well Name/Number: Brown No. 2-06H
Location: SW NW Lot 5 Section 6 T25N R53E
County: Richland **, MT; Field (or Wildcat)** Wildcat

Air Quality

(possible concerns)
Long drilling time: No, 25-35 days drilling time.
Unusually deep drilling (high horsepower rig): Triple derrick rig 1000 HP to go to 16,320'MD/9048'TVD.
Possible H2S gas production: Slight
In/near Class I air quality area: No Class I air quality area.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under rule 75-2-211.

Mitigation:
X Air quality permit (AQB review)
X Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:_____
Comments: Gas pipeline system in the area to take associated gas.

Water Quality

(possible concerns)
Salt/oil based mud: Yes to intermediate casing string hole to be drilled with oil based invert drilling fluids. Horizontal laterals will be drilled with produced brine water. Surface casing hole to be drilled with freshwater and freshwater mud.
High water table: No high water table anticipated.
Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to West Charley Creek, about just west of this location and also north about ¼ mile from this location..
Water well contamination: No, nearby water wells are shallow in depth. Closest water wells are about ¼ of a mile to the west and southwest and ½ of a mile to the southwest from this location. Depth of these wells are 100' and less. Surface casing will be drilled with freshwater, casing set to 981' and cemented back to surface.
Porous/permeable soils: No, sandy silty clay soils.
Class I stream drainage No, Class I stream drainages.

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other: _____
Comments: 981' surface casing well below freshwater zones in adjacent water wells. Also, covering Base of the Fox Hills aquifer. Surface hole will be drilled with freshwater and freshwater muds to 981'+. Steel surface casing will be run and cemented to surface from 981'.

Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None anticipated.
High erosion potential: No, location will require small cut, up to 4.9' and small fill, up to 0.9', required.
Loss of soil productivity: Slight, location to be restored after drilling well if well is nonproductive. If productive unused portion of wellsite will be reclaimed.
Unusually large wellsite: No, location is a large wellsite, 300'X400' in size.
Damage to improvements: Slight
Conflict with existing land use/values: Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
X Stockpile topsoil
__ Stream Crossing Permit (other agency review)
X Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
X Other: Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be over existing county gravel roads, #314 and over existing well access road. About 225' of new access road will be built off the existing well road into this location. Oil based drilling fluids will be recycled. Freshwater surface hole cuttings will be buried on site. Oil based drill cuttings will be buried in the lined reserve pit. Completion pit fluids will be hauled to a permitted Class II saltwater disposal. Pit will be backfilled when dry. No concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Residences about ¼ of a mile to the west northwest and 1.25 miles to the south from this location.
Possibility of H2S: Slight to none.
Size of rig/length of drilling time: Triple drilling rig 25 to 35 days drilling time.

Mitigation:
X Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____

Comments: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems. Noise should not be a problems, sufficient distance from residence to rig should mitigate this.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified in the area.
Proximity to recreation sites: None identified in the area.
Creation of new access to wildlife habitat: None
Conflict with game range/refuge management: None
Threatened or endangered Species: Threatened or endangered species listed in Richland county by USFW service are Pallid Sturgeon, Piping Plover, Interior Lease Tern and Whooping Crane.

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other:_____

Comments: Private surface land. No concerns.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified.

Mitigation

__ avoidance (topographic tolerance, location exception)

__ other agency review (SHPO, DSL, federal agencies)

__ Other:

Comments: Private surface lands.

Social/Economic

(possible concerns)

__ Substantial effect on tax base

__ Create demand for new governmental services

__ Population increase or relocation

Comments: Additional development well in this spacing unit (Section 6 & 7). No concerns.

Remarks or Special Concerns for this site

16,320'MD/9048'TVD single lateral horizontal Bakken formation development well. This the third well in this spacing unit.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected, only some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki
(title:) Chief Field Inspector
Date: February 9, 2010

Other Persons Contacted:

(Name and Agency)
Montana Bureau of Mines and Geology, Groundwater Information Center website.
(subject discussed)
Water wells in Richland County
(date)

February 9, 2010

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Richland County
(subject discussed)

February 9, 2010
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection:_____